

*United States Marine Corps  
Command and Staff College  
Marine Corps University  
2076 South Street  
Marine Corps Combat Development Command  
Quantico, Virginia 22134-5068*

***MASTER OF MILITARY STUDIES***

***OPERATION EAGLE CLAW - LESSONS LEARNED***

**SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF MILITARY STUDIES**

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**AY 2000-01**

| Report Documentation Page   |  |  |
|---|--|--|
| <b>Report Date</b><br>2002  | <b>Report Type</b><br>N/A                          | <b>Dates Covered (from... to)</b><br>- |
| <b>Title and Subtitle</b><br>Operation Eagle Claw-Lessons Learned   | <b>Contract Number</b>                             |  |
|   | <b>Grant Number</b>                                |  |
|   | <b>Program Element Number</b>                      |  |
| <b>Author(s)</b>  | <b>Project Number</b>                              |  |
|   | <b>Task Number</b>                                 |  |
|   | <b>Work Unit Number</b>                            |  |
| <b>Performing Organization Name(s) and Address(es)</b><br>United States Marine Corps Command and Staff College<br>Marine Corps University 2076 South Street Marine<br>Corps Combat Development Command Quantico, VA<br>22134-5068   | <b>Performing Organization Report Number</b>       |  |
| <b>Sponsoring/Monitoring Agency Name(s) and Address(es)</b>   | <b>Sponsor/Monitor's Acronym(s)</b>                |  |
|   | <b>Sponsor/Monitor's Report Number(s)</b>          |  |
| <b>Distribution/Availability Statement</b><br>Approved for public release, distribution unlimited   |  |  |
| <b>Supplementary Notes</b>  |  |  |
| <b>Abstract</b><br><p>The failed hostage rescue attempt at Desert One led to many changes in how joint military operations are conducted. This paper will analyze Operation Eagle Claw and evaluate the evolution in the conduct of joint operations. A study of Operation Eagle Claw reveals three recurring themes regarding the failure of the operation, Operations Security (OPSEC), Command and Control, and equipment reliability. Operation Eagle Claw failed to rescue the American hostages in Iran; however it did leave many lessons that were applied to subsequent operations. Eagle Claws greatest contribution was that it provided a catalyst for change in the Department of Defense. It contributed to the development of the 1986 Goldwater-Nichols Act, and gave impetus to the creation in 1987 of the U.S. Special Operations Command.</p> |  |  |
| <b>Subject Terms</b>  |  |  |
| <b>Report Classification</b><br>unclassified  | <b>Classification of this page</b><br>unclassified |  |
| <b>Classification of Abstract</b><br>unclassified   | <b>Limitation of Abstract</b><br>UU                |  |

|                        |
|------------------------|
| <b>Number of Pages</b> |
|------------------------|

|    |
|----|
| 55 |
|----|

# REPORT DOCUMENTATION PAGE

FORM APPROVED - - - OMB NO. 0704-0188

public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters services, directorate for information operations and reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the office of management and budget, paperwork reduction project (0704-0188), Washington, DC 20503

|  |                |  |
|--|----------------|--|
| 1. AGENCY USE ONLY (LEAVE BLANK)   | 2. REPORT DATE | 3. REPORT TYPE AND DATES COVERED<br><b>STUDENT RESEARCH PAPER</b>  |
| 4. TITLE AND SUBTITLE<br><br>OPERATION EAGLE CLAW- LESSONS LEARNED   |                | 5. FUNDING NUMBERS<br><br><b>N/A</b>                               |
| 6. AUTHOR(S)<br><br>Maj. Richard A. Radvanyi, USAF   |                |  |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br><br><b>USMC COMMAND AND STAFF COLLEGE<br/>2076 SOUTH STREET, MCCDC, QUANTICO, VA 22134-5068</b>  |                | 8. PERFORMING ORGANIZATION REPORT NUMBER<br><br><b>NONE</b>        |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)<br><br><b>SAME AS #7.</b>  |                | 10. SPONSORING/MONITORING AGENCY REPORT NUMBER:<br><br><b>NONE</b> |
| 11. SUPPLEMENTARY NOTES<br><br><b>NONE</b>   |                |  |
| 12A. DISTRIBUTION/AVAILABILITY STATEMENT<br><br><b>NO RESTRICTIONS</b>   |                | 12B. DISTRIBUTION CODE<br><br><b>N/A</b>                           |
| 13. ABSTRACT (MAXIMUM 200 WORDS)<br>The failed hostage rescue attempt at Desert One led to many changes in how joint military operations are conducted. This paper will analyze Operation Eagle Claw and evaluate the evolution in the conduct of joint operations. A study of Operation Eagle Claw reveals three recurring themes regarding the failure of the operation, Operations Security (OPSEC), Command and Control, and equipment reliability. Operation Eagle Claw failed to rescue the American hostages in Iran; however it did leave many lessons that were applied to subsequent operations. Eagle Claw's greatest contribution was that it provided a catalyst for change in the Department of Defense. It contributed to the development of the 1986 Goldwater-Nichols Act, and gave impetus to the creation in 1987 of the U.S. Special Operations Command. |                |  |
| 14. SUBJECT TERMS (KEY WORDS ON WHICH TO PERFORM SEARCH)<br>Eagle Claw<br>Desert One<br>Iranian Hostage Rescue<br>Holloway Report  |                | 15. NUMBER OF PAGES: 47  |
|  |                | 16. PRICE CODE: N/A  |

|                                       |   |   |                            |
|---------------------------------------|---|---|----------------------------|
| 17. SECURITY CLASSIFICATION OF REPORT | 18. SECURITY CLASSIFICATION OF THIS PAGE: | 19. SECURITY CLASSIFICATION OF ABSTRACT | 20. LIMITATION OF ABSTRACT |
| <b>UNCLASSIFIED</b>                   | <b>UNCLASSIFIED</b>                       | <b>UNCLASSIFIED</b>                     |                            |

Mentor: LTCOL Robert S. Trout

Approved:\_\_\_\_\_

Date:\_\_\_\_\_

Mentor: DR. John P. Cann

Approved:\_\_\_\_\_

Date:\_\_\_\_\_

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## EXECUTIVE SUMMARY

**Title:** Operation Eagle Claw- Lessons Learned

**Author:** Richard A. Radvanyi, Maj. USAF

**Thesis:** The failed hostage rescue attempt at Desert One led to many changes in how joint military operations are conducted. This paper will analyze Operation Eagle Claw and evaluate the evolution in the conduct of joint operations.

**Discussion:** A study of Operation Eagle Claw reveals three recurring themes regarding the failure of the operation, Operations Security (OPSEC), Command and Control, and equipment reliability.

The perceived need for excessive OPSEC to preserve the element of surprise caused many problems throughout the scope of the operation. Extreme compartmentalization of information among the planning staff as well as the participants in the operation caused major disruptions in the coordination of key elements in the rescue effort.

Another problem related to OPSEC was Command and Control. An ad-hoc Joint Task Force planning staff was formed, even though an existing JTF planning staff was available in the Pentagon. Because of the ad-hoc nature of the new JTF, clear lines of authority were not drawn between the planning staff and the various organizations participating in the operation.

A specifically designed and modified rescue helicopter was not available for Eagle Claw, therefore, the RH-53D was selected as the next best alternative. It was not designed for the mission it was to undertake. This fact would manifest itself at Desert One when the minimum number of helicopters would not be available to continue the mission.

**Conclusion:** Operation Eagle Claw failed to rescue the American hostages in Iran; however it did leave many lessons that were applied to subsequent operations. Eagle Claw’s greatest contribution was that it provided a catalyst for change in the Department of Defense. It contributed to the development of the 1986 Goldwater-Nichols Act, and gave impetus to the creation in 1987 of the U.S. Special Operations Command.

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A military raid is...a high-risk venture that operates on the outer margins of the possible, relying on skill, daring, and a goodly measure of luck. When a raid succeeds, it acquires almost magical qualities and endows its authors with the badge of genius. Hence the appeal. When it fails, it invites ridicule and the second-guessing of armchair strategists.

- Gary Sick, *All Fall Down*

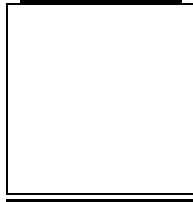
## **THE MISSION**

On 4 November 1979 approximately 500 Iranian militant students invaded the United States Embassy in Tehran and took over 60 Americans hostage. Two days later National Security Advisor Zbigniew Brzezinski directed the Pentagon to begin planning for a rescue mission, or retaliatory strikes if the hostages were harmed.<sup>1</sup> Thus began the 172 day history of Operation Eagle Claw, with its tragic conclusion at Desert One on 25 April 1980. This paper will trace the events leading to the Desert One tragedy and show how it affected future U.S. capabilities. The primary vehicle for this analysis will be the results of the Joint Chiefs of Staff Special Rescue Mission Report, informally known as The Holloway Report.

In order to understand the sheer complexity and scope of the rescue mission, one must first understand the condition of the U.S. Armed Forces at this time in history. This period was the height of the “hollow” force of the post-Vietnam era. The U.S. Military had been drastically reduced in size and quality in the seven years following the withdrawal from Vietnam. Many of the military’s unique capabilities had been reduced. Critical to this situation was the limited capability of the Army and Air Force Special Operations Forces, who when fully equipped and manned performed dramatic feats of bravery and military skill in Southeast Asia. Cuts in appropriations and personnel forced the military to prioritize its force capabilities, which resulted in a significant lack of special operations capability in the military. This also resulted in a lack of special operations expertise in the operational force as well as on the military staffs.

In October 1977, a German commercial airliner had been hijacked and flown to Mogadishu, Somalia. While there, a West German counter terrorist unit stormed the plane, overwhelmed the terrorists, and rescued the hostages. The Joint Chiefs of Staff were asked if the U.S. military had the same capability as displayed by the West German force. The answer was no; however, there was a unit being formed in the Army aimed at specifically countering terrorist actions. This unit was called Delta Force and was just beginning to organize its personnel and develop its capabilities. By November of 1979, Delta Force was fully manned and trained and had recently been certified as operational. It was directed to begin preparing for the hostage rescue mission.

#### **THE PLAN**



Planned route of flight for C-130s and RH-53Ds

Upon direction from the National Security Advisor and the Secretary of Defense, a Joint Task Force planning staff was formed within the Joint Chiefs of Staff directorate. Because of the perceived need for extreme secrecy, an ad-hoc JTF planning staff was formed, versus using an established JTF planning staff organization within the JCS that was already set up for handling contingency taskings. This planning staff began work in November 1979, and by March 1980, developed what it thought was a workable plan.

The plan was staggering in its intricacy and magnitude, bringing together scores of aircraft and thousands of men from all four services and from units scattered from Arizona to Okinawa, Japan.

Once all the forces were in place, the plan was to be executed in the following manner:

On the first night, six Air Force C-130s carrying 132 Delta Force commandos, Army Rangers, and support personnel and additional helicopter fuel would fly from the island of Masirah, off the coast of Oman, more than 1,000 miles to Desert One, being refueled in flight from Air Force KC-135 tankers. Eight Navy RH-53Ds would lift off from the aircraft carrier U.S.S. Nimitz, about 50 miles south of the Iranian coast, and fly more than 600 miles to Desert One.

After refueling on the ground from the C-130s, the helicopters would carry the rescue force to a hideout in the hills about 50 miles southeast of Tehran, then fly to a separate hiding spot nearby. The C-130s would return to Masirah, being refueled in flight again. The next night, Delta Force would be driven to the United States Embassy in vehicles obtained by agents that were previously placed in-country. A team of Army Rangers would go to rescue the three American hostages held in the foreign ministry building.

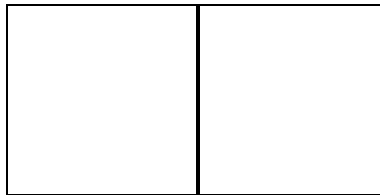
As the ground units were freeing the hostages, the helicopters would fly from their hiding spot to the embassy and the foreign ministry building. Three Air Force AC-130 gunships would arrive overhead to protect the rescue force from any Iranian counterattack and to destroy the

Iranian Air Force fighters located at the Tehran airport. The helicopters would fly the rescue force and the freed hostages to an abandoned air base at Manzariyeh, about 50 miles southwest of Tehran, which was to be seized and protected by an Army Ranger company flown in on C-130s. The helicopters would then be destroyed and C-141s, flown in from Saudi Arabia, would then fly the entire group to a base in Egypt.<sup>2</sup>

A little known part of the plan included *Python Force*, comprised of 90 Force Recon Marines, led

by Maj. Oliver North. Their mission was a backup extraction element, ready to intervene if any helicopters went down in Tehran, or if Delta Force became trapped. They were placed in eastern Turkey, ready to respond if needed.<sup>3</sup>

### **THE REALITY**



MC-130

RH-53D

On 16 April, 1980 President Carter approved the plan for Operation Eagle Claw, and a target date of 24-25 April was set. After five months of planning, organizing, training, and a complicated series of tentative mission rehearsals, the capability to rescue people being held hostage was now a reality.

The mission began on the evening of 24 April, with the C-130s departing Masirah and heading into Iran for their refueling rendezvous with the helicopter force at Desert One. At

about the same time, the helicopter force of eight RH-53Ds lifted off from the deck of the U.S.S. Nimitz and began heading for the Iranian coast about 60 miles away. About two hours into the mission, helicopter 6 received a warning on its Blade Inspection Method, or BIM system, which indicated a possible impending rotor blade failure. For the Marine pilots, this type of warning indication necessitated an immediate landing; however, the Navy RH-53Ds had a newer BIM system than the Marine CH-53 helicopters, and a BIM warning in the Navy RH-53Ds did not necessitate an

immediate landing.<sup>4</sup> This information was never disseminated to the Marine pilots flying the Navy helicopters, so the Marine crew followed their normal procedures and landed the helicopter. The crew abandoned their helicopter in the desert and climbed aboard another helicopter that had landed with them to help. The helicopter force was now down to seven.

Meanwhile the C-130 force, now well into Iran, ran into an area of reduced visibility. This area was caused by a phenomenon of suspended dust particles called a haboob that is common to the Iranian desert. The possibility of this type of weather phenomenon occurring during the mission was known to the Air Force weather forecasters supporting the mission; however, this information was never passed to the aircrews. For the C-130s flying at 2000 feet, it was a minor inconvenience, for the helicopters flying at 200 feet, it was a major obstacle to safe navigation. The C-130s quickly exited the area of the dust cloud and proceeded. Later in the flight they encountered a much thicker and more extensive dust cloud, and they tried to contact the helicopter force to warn them; however, communications were never established between the C-130s and RH-53Ds.

The helicopter force entered the dust cloud and continued, despite the debilitating effects of flying in near zero visibility conditions at night while wearing night-vision goggles. Helicopter

5 began experiencing electrical problems while flying in the dust cloud. More and more of its essential flight and navigation instruments were failing, and without visual flight references, it was becoming increasingly dangerous to continue the mission. Because he was ordered to maintain strict radio silence to avoid detection, helicopter 5 was unable to ascertain the location of the other helicopters or determine the extent or duration of the dust cloud. Because of these

uncertainties, helicopter 5 elected to turn back and return to the U.S.S. Nimitz. Later it was determined that helicopter 5 was only 25 minutes away from exiting the dust cloud and would have experienced clear conditions the rest of the way to Desert One. Helicopter 5 probably would have elected to continue had he known that he would exit the dust cloud within a few minutes and had clear conditions the rest of the flight. The rescue force was now down to six helicopters, the minimum required to continue the mission.

While the helicopters were battling the dust cloud, the C-130s landed at Desert One and were setting up for the ground refueling of the helicopter force. According to the flight plan, the helicopters should arrive approximately 20 minutes after the C-130s landed. Unfortunately there was an error in the flight plan, and the helicopters would not start arriving until almost an hour later. After getting separated in the dust cloud, the helicopters started arriving in groups of ones and twos, and after almost an hour and a half, the remaining six helicopters were at Desert One. The mission was still a go.

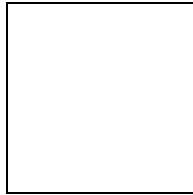
Shortly after landing, helicopter 2 shut down its engines, having suffered a catastrophic failure of its #2 hydraulic system, a fact which made the helicopter unsafe for further flight operations. There was no chance of repairing it at Desert One. Without six functioning helicopters at Desert One, the mission would have to be scrubbed.

The rescue force was now tasked with something it had never rehearsed, the withdrawal from Desert One. In order to get the C-130s properly aligned for departure, one of the helicopters had to move from its current location. As the helicopter began to lift-off, it inadvertently slid sideways and into one of the C-130s. The collision ripped open the C-130 and ignited fuel and

ammunition. Eight servicemen died in the inferno, and the rest of the rescue force was forced to evacuate Desert One, leaving the remains of their brave comrades and the wreckage of the

remaining C-130 and six helicopters.

## **THE INVESTIGATION**



Aftermath of C-130 and RH-53D collision at Desert One

The next day, 25 April, 1980, President Carter went on national television and announced the failure of the mission and accepted the blame and responsibility for all that had happened. Almost immediately inquiries to determine the reasons for the tragedy began. The official

Pentagon investigation into the events leading up to Desert One was handled by a board of three active duty flag officers and three retired flag officers, representing all four services. The board was led by retired Admiral James L. Holloway, III, and was formally known as the Special Operations Review Group. The “Holloway Report”, as it came to be known, was the result of this group’s exhaustive investigation into the planning and execution of Operation Eagle Claw. The report cited 23 areas that critically affected the conduct of the mission, and could have influenced its success or failure. The review board’s charter was not to find fault or place blame; it was to make evaluations and specific recommendations on the key aspects of planning and execution. In fact, the board unanimously agreed that the people who commanded, planned, and executed the operation were the most competent and



best qualified for the task of all available. All the servicemen who participated in this mission deserved to have a successful outcome. It was the ability, dedication, and enthusiasm of these individuals that made what everyone thought was impossible into something that should have been, and came close to being, a success.<sup>5</sup>

When evaluating the issues brought out by the Special Operations Review Group, there are three basic factors that must be kept in mind in order to maintain perspective on the boards analysis:

A forcible rescue was very much a contingency plan, only to be implemented if all other alternatives failed.

On the other hand, a sense of urgency was impressed on the JTF commander and his staff at the very outset, an immediate operation could be required.

All planning and preparation required maximum Operations Security (OPSEC) because the sine qua non of the concept was to place the ground rescue force at their final assault position with total surprise.<sup>6</sup>

These three basic factors were the overriding influence in the planning and execution of Operation Eagle Claw. At times these factors were conflicting, and led to decisions being made and actions being taken that were not in the best interests of the successful completion of the

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mission. The Special Operations Review Group unanimously concluded that no one action or lack of action caused the operation to fail. Operation Eagle Claw was by its nature a high-risk mission that involved the possibility of failure. The object of the group's analysis was, with the benefit of hindsight, to identify areas in which risk might have been better managed.<sup>7</sup>

**‘HOT WASH’**

The following 23 issues were identified by the Special Operations Review Group as issues that deserved full analysis. These issues cover the most general and conceptual to the most specific and operational. Almost all of these issues could be applied to any complex, covert, joint military operation, and their study and review for lessons learned could prove invaluable for any military member involved in future military planning or operations.

### Operations Security (OPSEC)

The Joint Staff Officers Guide, JFSC PUB 1, defines *OPSEC* as:

A process of identifying critical information and subsequently analyzing friendly actions attendant to military operations and other activities to:

- a. Identify those actions that can be observed by adversary intelligence systems.
- b. Determine indicators hostile intelligence systems might obtain that could be interpreted or pieced together to derive information in time to be useful to adversaries.
- c. Select and execute measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to adversary exploitation.<sup>8</sup>

The requirement for the rescue force to arrive at the American Embassy in Tehran with complete surprise was paramount to the success of the mission. So critical was the need for security in order to achieve the element of surprise that all other functions in planning, training, and execution were subservient. From the very beginning task force members were obsessed with the need for total secrecy. This led to an almost indiscriminate application of OPSEC measures to almost all information involving the operation. This obsession with OPSEC led to

extreme compartmentalization within the planning staff itself. Individual planners on the staff were restricted to receiving only that information necessary to perform their particular planning function. An

independent plans review, a critical step in any planning process, was never accomplished by anyone outside of the JTF planning team. Plans reviews were performed by those involved in the planning process, usually restricted to only those portions of the plan that they themselves completed, thereby limiting the objectivity of the plans review process.

This excessively restrictive OPSEC policy was not limited to just the planning function. The training activities of all the participants were hindered by the lack of information cross-flow regarding the coordination, cooperation, and training feedback between the different military forces involved in the rescue operation. The fact that an operation of this magnitude and complexity, requiring extreme teamwork and coordination, never had a training exercise in which all the participants came together speaks volumes about how overriding the concern for OPSEC was. The first time that all the participants actually worked together was during the rescue operation itself!

Excessive OPSEC restrictions carried over into the execution phase as well. Key elements of information were never allowed to be disseminated to flight crews, and the flight crews themselves were not allowed to communicate with each other, resulting in the lack of critical information required for proper decision making.

The JTF's obsession with extreme secrecy to preserve the element of surprise led it to adopt excessive OPSEC measures which overshadowed all other aspects of the mission. By adopting such measures, the JTF staff limited its flexibility and capability to provide the level of support necessary to its forces to ensure mission success. Although the rescue force did indeed reach Desert One undetected, it was unable to continue its mission, partly due to OPSEC restrictions which prevented the required number of helicopters from reaching Desert One.

### OPSEC Lessons

The application of extreme OPSEC measures throughout the planning, training, and execution

of Eagle Claw was a procedural shortfall of the JTF staff. Although information was kept out of the hands of any adversaries, it was also kept out of the hands of the military operators who were supposed to execute this mission. Identify actions, determine indicators, and select measures, are all key components of the definition of OPSEC. By applying these principles in a less paranoid fashion, the JTF staff could have provided greater selectivity and flexibility in the OPSEC arena. Planners and operators must always be cognizant of the need for proper OPSEC measures, however they must remember that too much OPSEC can be just as damaging as too little OPSEC.

### *Command and Control*

The Joint Staff Officers Guide, JFSC PUB 1, defines *Command and Control* as:

The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.<sup>9</sup>

At the direction of the Chairman of the Joint Chiefs of Staff, a small planning cell began to formulate military options for the rescue of the American hostages. This small planning cell operated within the JCS Directorate, and soon became the nucleus of the JTF planning staff. An organizational and planning framework for an existing JCS CONPLAN already existed, however the JTF planning team opted not to use this structure. It relied instead on an ad-hoc arrangement for its planning structure. Many functions of the planning staff were extremely compartmentalized and utilized separate lines of communication to subordinate units and sources of information. The lines of authority from the President down to the JTF Commander were clear and direct, however from the JTF Commander down, the lines were ill defined, implied, or nonexistent (see Appendix 1). Ad-hoc arrangements and

compartmentalization of planning functions can lead to taskings from different sources being sent to the same unit. This can lead to confusion at the operational level.

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A clear chain of command with designated commanders is essential to the sound organization, planning, and preparation of complex operations. This situation did not exist under the JTF staff structure. During the training phase of the helicopter crews, two different officers assumed they were in charge of the training program.<sup>10</sup> This is but one example of clear lines of authority and command and control not being clearly delineated under the JTF staff level. The senior leadership in the JTF staff allowed the need for security to out-weigh the need for a clearly defined command and control structure.

### Command and Control Lessons

Ad-hoc command and control arrangements rarely provide the necessary structure to properly command an organization or a contingency operation over a long period of time.

The requirements for OPSEC must be properly balanced against the requirements for a sound command and control structure. Using an existing JCS framework to organize, plan, train, and execute a mission will also provide the necessary OPSEC. Clearly defined lines of authority operating within an established framework would have provided the necessary command and control of the various forces being brought together for this operation.

### Centralized Intelligence Support

The successful accomplishment of the hostage rescue attempt was directly linked to the acquisition of precise and timely intelligence. Operational planning revolved around intelligence received concerning

the state and location of the hostages. The JTF planning staff included an intelligence officer, who was later augmented with three additional intel officers. In addition each of the service components had their own intelligence section. The scope and complexity of the rescue mission required additional intelligence assets. As with the JTF staff, ad-hoc arrangements with outside intelligence agencies were formed to get the necessary intelligence

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information. Most of these agencies were not fully briefed on the mission that they were supporting, and therefore were not able to provide the level of assistance that they would otherwise be able to provide if properly briefed on the requirements and mission objectives.

The pressure to receive intelligence requests as quickly as possible resulted in many reports flowing directly to the service components, as well as raw or partially evaluated reports going directly to the planners. Sometimes this resulted in information getting to the planners before any intelligence analyst could evaluate it, even the analyst responsible for that particular subject area. There was no formal structure for requesting or receiving intelligence information from outside agencies. Individual requests were handled on a case-by-case basis with the appropriate outside agency.

#### Centralized Intelligence Support Lessons

Since the sheer volume of intelligence required to properly execute this mission exceeded the intelligence assets within the JTF staff, a more consolidated approach to intelligence management would have facilitated the needs of the planning staff. The Defense Intelligence Agency (DIA) could have been tasked to establish an interagency Intelligence Task Force (ITF) to support the JTF.<sup>8</sup> This would have allowed the ITF to be the single point of focus for all intelligence requests and dissemination. It would allow the JTF intel staff to be more responsive to the needs of the JTF commander, as it acts as the

liaison between the JTF and the ITF intelligence assets.

### Independent Review of Plans

Operation Eagle Claw was an extremely complicated operation, involving all four services and many maneuver elements. Extensive compartmentalization of planning functions further complicated the operational plan, and hindered any opportunity for a cohesive review of the operation. Early on in the planning process consideration was given to establishing a small

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group of individuals with special operations experience to act as consultants and to provide an independent review of the plan as it developed. Overriding concerns for OPSEC and the perceived need to keep the number of personnel with knowledge of the complete plan as limited as possible led to a conscious decision to abandon the concept of an independent review group.

As a result, the planners themselves reviewed and critiqued their own products. The JTF staff recognized that this had potential disadvantages, and tried to compensate by validating planning concepts through training exercises accomplished by the individual organizations responsible for that portion of the plan. This procedure never addressed the entire operational plan, and a full dress rehearsal comprised of all the components was never accomplished.

### Independent Review of Plans Lessons

Every military planning organization understands the need for an independent review or “murder board” of operational plans. Planning staffs can get so engrossed in their individual portions of an organizational plan that they lose sight of the “big picture”. When security issues infringe on the ability for a planning staff to properly have their plans evaluated, steps must be taken to facilitate the selection

of qualified individuals that meet security requirements and can provide objective reviews of the operational plan. A careful balance between operational security and operational success must always be maintained; however, the contribution that an independent reviewing staff can provide to the success of a mission should never be overlooked. Through carefully applied OPSEC concepts, operational security can be maintained while still providing the capability for an independent review of operational plans.

### *Comprehensive Readiness Evaluation*

The key to success of any military operation is organizational preparedness. Realistic training and evaluation is an essential requirement for organizational preparedness. In an operation as complex as Eagle Claw, where the integration of numerous maneuver elements relies on speed,

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complicated coordination, and inter-unit synchronicity, the value of complete integrated rehearsals cannot be overemphasized. Not only do the maneuver units get exercised during rehearsals, but the command element and staffs also get invaluable insight into the feasibility of its operational plan. Because of the informal and ad-hoc nature of the command structure for Eagle Claw, training was planned and conducted in a highly decentralized manner. Individual and unit training was conducted and evaluated at widely separated locations. Certain units did come together for limited combined training at locations simulating expected conditions in Iran.

All of the individual plan segments were exercised by portions of the JTF component forces in conjunction with their respective roles and tasks. Readiness of individual units and force capabilities was assessed by individuals from the JTF staff, but this was accomplished at various stages of the operational plan development and force capabilities and requirements were changing throughout the



evolution of Eagle Claw. The decentralized nature of the JTF command supervision of training and evaluation led to a lack of a coherent picture of the full capability of the JTF. An integrated training and readiness evaluation was never conducted for the entire JTF force, thereby denying the JTF command leadership the opportunity to determine the full strengths and weaknesses of its operational force. Training and evaluation provides the commander the tools for shaping his force and preparing the organization for the task at hand.

### *Comprehensive Readiness Evaluation Lessons*

Any military operation, even more so an operation as complex as Eagle Claw, requires training and evaluation almost as rigorous as the operation itself. Any joint force that is brought together to form an integrated team must be afforded the opportunity to develop the types of working relationships between elements that spell the difference between success and failure. If an organization cannot train together in peace, how can it be expected to fight together in war. In the situation of a complex hostage rescue with grave political overtones for failure, such as Operation Eagle Claw, the complexities and restrictions are even more overwhelming. The need

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for joint, integrated training of all operational units in as realistic an environment as possible is crucial to the success of the operational force. This training must exercise all facets of the operational plan, and must include contingency operations and alternate plans.

Training and evaluation will not only reveal flaws or weaknesses in the operational forces, it will also reveal flaws or weaknesses in the operational plan. Integrated training and full rehearsals and evaluations will reduce risk and enhance the operation's probability for success. Operational forces must be afforded the opportunity to learn from their mistakes prior to executing the actual operation.

“Hot Washing” each exercise and having an independent observer evaluate the force’s capabilities ensures that the operation force realizes the greatest gain from its training exercises. The evaluation critiques and lessons learned are then applied to the unit’s training and the operational plan to further enhance the overall capability of the JTF.

### Overall Coordination of Joint Training

Operation Eagle Claw brought together units and capabilities from all four service components. Many of these units never operated together before, and required extensive joint inter-operability training. Supervision for overall joint training within the JTF was maintained at the JTF command level at the Pentagon. Coordination and supervision for training at the western U.S. training site was delegated to officers who acted in an advisory role to the JTF commander while performing their primary duties. None of these officers were responsible for the overall management of joint training activities. Tasking for joint training was the responsibility of the JTF commander, and would be supervised by members of the JTF staff that would travel to the training sites to observe the directed training.

Major emphasis was required in the area of joint training between the C-130 crews and the helicopter crews in the area of refueling operations for the helicopter force. Many times during the training process the C-130 crews would not land at the same base as the helicopter crews after conducting a joint training exercise, thereby limiting the capability for face-to-face

debriefing and critique of the training exercise. The complexities of the overall plan and the numerous tasks that required the JTF commander’s attention limited the amount of time the JTF commander and his staff could devote to the issues and coordination required for managing joint training between all the

operational forces.

The ad-hoc nature of the command structure and the unclear lines of authority also added to the lack of a coherent joint training plan. Following each of the individual training exercises, the JTF commander would hold post-exercise conferences with his staff to review the results of the training exercise.

Although these proved beneficial to the staff and planners in determining procedural and equipment problems and areas needing training emphasis, very little information relating to joint coordination issues made it either from the operational crews to the staff or from the staff to the operational crews.

#### *Overall Coordination of Joint Training Lessons*

Complex plans require complex training, and the myriad of unique and highly specialized operations that were integral to the success of Operation Eagle Claw necessitated the need for direct supervision of the joint training required. The force insertion and helicopter refueling operation at Desert One involved a huge amount of resources and required intense training and coordination. The designation of an assigned officer and staff to oversee this particular aspect of the joint training requirements, as well as other joint training, would have relieved the JTF commander of the responsibility to supervise and monitor this phase of the operation. The JTF commander and his staff could concentrate on other important aspects of the plan while his designated representative and staff could spend their time fully supporting the joint training effort. In operations such as this, in which forces are so interdependent that complete force integration is essential, the direct supervision of joint training is mandatory. It cannot be relegated to an additional duty of the commander, but must be centrally controlled and supervised by a dedicated officer in charge with enough staff support to provide the joint forces

being trained all the support they need to become a fully integrated force.

### Alterations in JTF Composition

One of the many challenges presented by the Iranian hostage situation was the constantly changing political and military environment, as well as the continually fluctuating conditions within the country of Iran and the embassy itself. This probably presented the JTF commander and his planners the most perplexing problem in the entire plan. Constantly changing conditions necessitated constantly changing capabilities. Significant planning and training problems arose as the JTF commander attempted to respond to changes in the mission tasking.

The initial objective following the taking of the hostages was to quickly provide a capability to perform an emergency rescue. As a more credible rescue capability began to form, emphasis shifted to a more deliberate approach and to planning an operation to be conducted under conditions conducive to U.S. military initiative.

Key to the entire rescue operation was the problem of successful insertion and extraction of the ground rescue force and the recovered American hostages. Early on it was determined that a helicopter-borne force would present the best opportunity for mission success. Early intelligence estimates were used to determine the size of ground force required to complete a successful operation. Initially a ground force of approximately 80 personnel was established as the minimum required to complete a penetration of the embassy and extract the hostages.<sup>11</sup> An airlift and helicopter force was formulated based on this number and early training and operational planning was conducted using this requirement. The initial helicopter requirement was four helicopters, however this changed over time as mission assessment needs were revised based on updated intelligence.

To a large extent, intelligence drove the operational requirements, as changing conditions forced

adjustments to the intelligence assessments. Subsequent changes to mission requirements dictated changes to the required ground rescue forces, which in turn changed the required number

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of helicopters. The helicopter requirement steady increased from four, to six, to seven, and finally to eight helicopters, including spares. These changes caused major fluctuations in operations planning, as well as training and support requirements.

It is understandable that the JTF commander was attempting to tailor his forces to provide the most capable rescue force available at the time of the rescue attempt; however, constantly fluctuating force structure only exacerbated an already difficult planning and training situation.

#### *Alterations in JTF Composition Lessons*

The temptation for a commander to make adjustments to his fighting force to optimize its capability up until the point of execution will always be a hard one to avoid. Unfortunately, in order to facilitate the planning and training function, a commander should attempt to fix his force structure at some point in the planning process. Minor adjustments after that point may always be made, provided they do not have a dramatic impact on planning and training. This may not always be an option for the commander to exercise. Enemy actions may not always cooperate with the commanders planning and training requirements. However, when able, if a commander can establish a ceiling of force requirements that the planning and training staffs can utilize and work from, then the end result will be a more finely tuned final plan with fewer last minute changes. Changes to plans will always be a reality, commanders should exercise the appropriate level of caution when implementing changes at a late date in the planning and training process.

### Risk Assessment of SIGINT Capabilities

Communications Security (COMSEC) played an integral role in the operations security of Operation Eagle Claw. As with the JTF's strict requirement for OPSEC, the need for strict COMSEC was also imparted to the operational forces. The analysis for the required level of COMSEC was directly related to the operational assessment of the hostile forces signal intelligence (SIGINT) capabilities. Due to the compartmentalized nature of the intelligence

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function within the JTF, different units had different assessments of the level of SIGINT threat facing the operational force. This led to varied radio procedures among units and had an impact on the effectiveness of joint training.

COMSEC procedures directly impacted the success of the mission itself. Prescribed COMSEC procedures required strict radio silence during the insertion portion of the mission into Desert One. Once the airlift force and the helicopter force encountered the dust cloud or haboob in Iran, strict COMSEC procedures prevented them from communicating the flight conditions to each other. As a result, the helicopter forces was never forewarned of the impending dust cloud, and helicopter 5 was never allowed to ascertain the flight conditions immediately in front of him or at the landing site at Desert One. Without having a means to receive this information, helicopter 5 elected to abort his mission based on the best available knowledge and his current flight condition. If helicopter 5 had been able to ascertain the flight conditions at Desert One, he may well have elected to proceed, thereby providing the minimum number of helicopters required to continue the mission.

### Risk Assessment of SIGINT Capabilities Lessons

Accurate assessment of enemy SIGINT capability is essential in determining the level of COMSEC

threat facing your operational force. A common understanding of the SIGINT capability and the COMSEC threat by all participating units is required in order to develop common COMSEC procedures and to train in these procedures prior to mission execution. Procedures must be established for situations requiring communications for command and control of forces, and must be balanced between the need for COMSEC and the operational necessity for communications. Thorough SIGINT assessment coupled with a detailed understanding of COMSEC procedures by all members of the operational force along with a detailed knowledge of all the communications capabilities available will ensure proper command and control while maintaining communications security. A disparity between the SIGINT

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capabilities reported to the flight crews resulted in the differences between the flight profiles of the C-130s and helicopters. The low altitudes flown coupled with the rugged terrain chosen for the flight path practically negated any chance of a viable SIGINT intercept.

### *Abort Criteria*

Command and control of the helicopter rescue force was hampered by ill-defined abort criteria during the insertion portion of the mission. The minimum visibility conditions required for the continuation of the mission were never defined or tested during training. Other positive abort criteria based on time control and navigational capability were also not defined during the planning and training phase of operations. The tendency was to leave the abort decision to the flight leader who would be expected to use his judgment and experience to make sound abort decisions based on prevailing conditions. This procedure was allowed in spite of the fact that strict COMSEC requirements precluded the use of radio communications to determine all the factors affecting an abort decision. It

also failed to recognize that the flight crews and helicopters would be operating in an environment and in flight regimes never before encountered, and none of the selected flight crews had ever flown such long range, low level missions. Still, the abort criteria to be used by the aircrews was left up to them, with no guidelines or framework provided by the planning staff to aid in developing an abort matrix.

Discrepancies between Marine flight crew CH-53 procedures and Navy RH-53D procedures resulted in what may have been an unnecessary helicopter abort and loss of the machine. If a clearly defined abort matrix (see Appendix 2) had been developed, the discrepancy between procedures could have been discovered, and the crews trained on the capabilities of the equipment being operated. The lack of any defined weather abort criteria resulted in the loss of flight integrity and the abort of another helicopter. Well defined abort criteria is one of the key tools for a flight leader to manage his flight and maintain flight integrity, especially during limited communications situations.

### *Abort Criteria Lessons*

Positive abort procedures, well defined and understood by all flight members, are integral elements of command and control of air assets. They would have enhanced the capability of the flight leader to maintain flight integrity and control. They also would have provided positive guidelines to be used both in training and during the operation, so that all flight members would know what to expect when certain conditions are encountered or equipment malfunctions occur.

The concept of Crew Resource Management (CRM) requires that flight leaders be afforded the capability to ascertain all the factors affecting any decision within the flight. The restrictive COMSEC requirements prevented the flight leader from making informed decisions regarding the management and control of the flight assets assigned to him. The JTF staff must determine what the priorities are and the level of acceptable risk when determining what the abort criteria will be. Then they must ensure that this



criteria is compatible with the safe operation of the assigned assets and allows for the proper command and control of the flight by the flight leader.

### *The Use of Other Helicopters*

Following the capture of the American Embassy and the taking of the hostages, the NCA directed that a military option for a rescue mission be evaluated. The JTF quickly determined that the most probable means of extracting the hostages would be through the use of heavy-lift, long-range helicopters. After reviewing and evaluating the capabilities of the military helicopter fleet, the Navy RH-53D was selected as the helicopter of choice for the rescue mission. The primary criteria for selection included range, payload, and ability to be positioned rapidly, i.e. airliftable.<sup>12</sup>

Other considerations included suitability for carrier operations and OPSEC. Other helicopters evaluated were the CH-46, CH-47, CH-53, and HH-53. The RH-53D provided the best combination of range, payload, and aircraft carrier compatibility. OPSEC was a major consideration in that the appearance of the helicopter force on an aircraft carrier as it prepared

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for the mission could not raise any suspicions as to the possible uses of that helicopter force.

At about the time that the rescue force was being assembled, the Air Force was fielding its latest rescue variant of the HH-53. This specially configured helicopter was specifically designed for long-range rescue operations and had state-of-the-art electronics and avionics enabling it to perform low-level night flight operations. The drawback to this platform was that it was not compatible with aircraft carrier operations in that its rotor blades and tail could not fold, and its new avionics were untried in an operational environment. It was therefore decided to stick with the RH-53D.

### *The Use of Other Helicopters Lessons*

The decision to use the RH-53D was based on criteria that involved all aspects of the operational plan. A thorough evaluation of all platforms available was accomplished and the most suitable platform available was selected. Although another helicopter was available that had greater mission capability, it was not fully tested, and therefore presented an unacceptable risk.

### Helicopter Force Size

As the evolution of the planning process continued for Operation Eagle Claw, the requirement for helicopter support stabilized at eight RH-53D helicopters. This requirement was primarily driven by the size of the ground assault force required to be transported from Desert One to Desert Two, and the available lift capability of the RH-53D based on the prevailing weather and temperature conditions expected in the mission area of operations. The decision to use eight helicopters was based on the professional judgment of experienced pilots who had past rescue mission planning experience. A risk analysis was done based on RH-53D historical data to determine the number of spare airframes required, based on maintenance reliability, to ensure the minimum number of six helicopters arrived at Desert One. In addition to practical mission planning factors, OPSEC played a role in the planners decision to limit the number of airframes to the bare minimum required.

Other than OPSEC, there were no other limiting factors to increasing the helicopter force to as many as twelve airframes. There was sufficient space aboard the aircraft carrier, there were sufficient aircrew resources available, and a sufficient amount of fuel would be available at Desert One to support and increased helicopter force. Based on the critical role that the helicopter force played in the successful accomplishment of this mission, it would behoove the mission planners to provide for as many helicopters as would be operationally feasible. Based on hindsight, it would appear that the inclusion of

even one more helicopter may have allowed the mission to proceed to the next phase of operations.

With OPSEC being the only limiting factor in helicopter force size, it comes down once again to balancing the need to provide for operational success versus the need to maintain operational security.

### *Helicopter Force Size Lessons*

The role of the helicopter force in Operation Eagle Claw was critical to the success of the mission. An operation of this extreme nature pushes both men and equipment to the limits, and operational planners must ensure that enough reserve capability is provided for in the plan to deal with the unforeseen contingencies, while at the same time maintaining an acceptable level of OPSEC for the mission. Many factors impacted the performance of the helicopters during their flight into Iran. Differences in procedures that affected abort decisions, poor weather conditions, lack of communications, etc. Only one helicopter actually failed to proceed on with the mission based on a maintenance malfunction. Statistical data alone on maintenance reliability cannot be the sole source of criteria to determine force size. There are many other variables that can affect the availability of airframes for the mission, and these contingencies must also be included in the planners calculations for appropriate mission sizing, while at the same time maintaining an acceptable level of OPSEC.

### *Alternate Helicopter Pilots*

At the time of the embassy takeover, there was very little intact long-range rescue helicopter expertise left in the U.S. military. There was some residual capability left over from the Vietnam War, but it was not intact and was far from being readily available. The mind set in the Pentagon after the

hostages were taken was that an immediate rescue capability must be made available. Since it was determined that the RH-53D would be the platform of choice and the helicopters would have to deploy from an aircraft carrier, it was decided to select an integral unit proficient in the RH-53D mission as the best means of providing an immediate rescue capability.

Since the RH-53D's primary mission was mine-sweeping, the Navy flight crews were not well versed in assault operations. To make up for this lack of operational experience, Navy pilots were paired up with Marine pilots who were proficient at assault missions. The progress in training of this crew configuration was deemed unsatisfactory by the JTF commander, and the crews that were not progressing were released. Other Navy and Marine Corps pilots who had demonstrated capabilities in the required mission requirements were recruited, and training progressed at a satisfactory rate. Because the possibility existed that a rescue operation may be mounted at any time, there was no coherent, ongoing flight training program; however, there was a series of overlapping two or three week training programs. This methodology in recruiting helicopter pilots required pilots well versed in the operation of a specific model of helicopter to become familiar with and proficient at an entirely new, complex mission role.

#### *Alternate Helicopter Pilots Lessons*

The constantly changing mission parameters negated the ability of the planning staff to prepare a thoroughly trained helicopter pilot force equally well versed in both the operation of the RH-53D helicopter and the demanding role of combat rescue missions. The USAF had over 100 qualified H-53 pilots, with over 90 current in long-range flight operations and aerial refueling operations. In addition, over 80 former H-53 qualified pilots had recent special

operations or rescue experience. These pilots were more experienced in the mission profiles most likely to be used in a rescue attempt, and most probably would have progressed more rapidly in the JTF training program. It has already been demonstrated in other platforms that transitioning from one variant of aircraft with similar flight characteristics to another while performing the same mission profile is much simpler and quicker than transitioning from one type of mission profile to another while flying the same aircraft. The Navy and Marine Corps pilots had to master new, difficult and complex mission skills, and required them to change their operational mind set. Although in the end the flight crews that flew in Operation Eagle Claw performed admirably and under the most extreme of operating conditions, the most likely solution for producing the most competent flight crews in the shortest amount of time would have been to carefully select crews from all the services with a heavy emphasis on USAF flight crews with special operations and rescue experience and USMC flight crews with assault experience.

#### *Established Helicopter Unit*

When the RH-53D was selected as the helicopter of choice, it was naturally assumed that an established RH-53D unit would inherit the rescue mission. This made the most sense since an established unit would bring with it an established framework of command and control, training, maintenance, and administrative support. Once the aircrew training began it became evident that the majority of pilots assigned were having difficulty transitioning to the new mission profiles. This necessitated the inclusion of other pilots from other units and services into a separate training program in order to prepare a qualified helicopter force.

#### *Established Helicopter Unit Lessons*

It was quickly learned that having an operational capability in a platform does not necessarily equate to having the same operational capability in the aircrews. This is simply a function of

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aircrew training and is no reflection on the abilities of the crewmembers themselves. Perhaps the best alternative in this type of situation would be to match up the flight crews of an operational unit that is qualified in the type of mission required with a helicopter unit that has the required mission capabilities, thus preserving the inherent strengths of the aircrew unit and the helicopter unit. Issues such as defining abort criteria and identifying differences in maintenance procedures, as was the case with the BIM indications, could be more readily identified and integrated into the aircrew training programs.

### *Handling the Dust Phenomenon*

At the time of the operation there was very little statistical data available regarding the weather patterns and recorded weather information in the mission objective areas. This necessitated the need to create a catalog of possible weather phenomena that could occur in the mission areas. Then the capability to forecast these possible weather phenomena had to be developed and evaluated. The extended time span of the operation (40 hours) further complicated the forecasting problem.

The phenomenon of suspended dust (the haboob) was one of the weather phenomena that was identified by the JTF weather staff as being a possible hazard to flight operations. A table was included in the OPLAN weather annex that annotated suspended dust occurrences by month and location. Unfortunately this information never made it to the operational flight crews. OPSEC considerations and compartmentalization of planning staff functions prevented the dissemination of critical weather data

from ever reaching the flight crews.

### *Handling the Dust Phenomenon Lessons*

The JTF planning staff architecture and the ad-hoc lines of command and control between different operating elements of the JTF created a situation where critical information that could affect the safe conduct of flight operations and the ultimate success of the mission were never

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made available to the operational flight crews. The time tested tradition of direct interaction between weather forecasters and flight crews was broken in an attempt to enhance OPSEC. This denied the flight crews the opportunity to express concerns regarding the environment that they would have to operate in. It also restricted the ability of weather forecasters to provide all available flight weather data to the flight crews. Being forewarned of the possibility of encountering such a weather phenomena along the mission route would have better prepared the helicopter flight crews to make more informed decisions regarding the continuation or termination of flight operations.

### *Weather Reconnaissance*

The ability to accurately forecast flight conditions along the intended helicopter route was a constant concern of the JTF staff. JTF weather forecasters were tasked to develop forecasts for the mission objective areas, then their forecasts were checked for accuracy by evaluating weather imagery of the area for the forecasted period. Over time the JTF staff gained confidence in the forecasters ability to provide accurate weather forecasts for the mission areas.

Based on this perceived capability and the belief that the probability of visual meteorological conditions (VMC) would be high during the proposed mission timeframe, the planning staff elected to

plan the helicopter ingress using visual navigation procedures enhanced with the use of night vision goggles. If severe weather was encountered that precluded the use of night vision goggles, the mission would be aborted. The use of a weather reconnaissance sortie was not seriously pursued based on what appeared to be a straight forward approach to the weather forecasting situation. It was decided that adding a sortie that would overfly the helicopter ingress route would unnecessarily increase the risk to OPSEC.

### Weather Reconnaissance Lessons

Although the JTF weather forecasters were able to forecast general weather conditions in the

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mission objective areas, they were unable to forecast localized weather phenomena such as the haboobs. Not being forewarned of the possibility of encountering such a weather phenomenon, the helicopters crews were ill prepared to deal with the haboob. As a result, the helicopter flight leader was forced to momentarily land, his formation was separated, helicopter 5 aborted, and the remaining helicopters staggered into the Desert One rendezvous site as much as 85 minutes late. In such a situation where weather information is critical to the success or failure of the mission, and there is a scarcity of reliable weather data available to ensure an accurate mission forecast, the use of a weather reconnaissance sortie can make the difference between success or failure.

### C-130 Pathfinders

Based on the limited navigational capability of the RH-53D helicopters, consideration was given to including a C-130 pathfinder sortie to the helicopter ingress mission. The primary method of navigation for the helicopter crews was dead reckoning using night vision goggles to aid in terrain following. During



the training phase of operations the helicopter crews demonstrated sufficient capability to navigate over long distances at night using night vision goggles. Based on this demonstrated capability and the belief that the JTF weather forecasters could reliably predict weather conditions in the operations areas, it was decided that the use of a C-130 pathfinder would unnecessarily complicate the operation.

### C-130 Pathfinders Lessons

The inclusion of a C-130 pathfinder into the helicopter formation would not have unnecessarily complicated the flight operation. C-130s can fly at compatible airspeeds with RH-53D helicopters. The airlift C-130 force was already ingressing at approximately the same location and nearly the same time as the helicopter force. It would have been a simple task to integrate a pathfinder aircraft into the helicopter formation. The increased navigational

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capabilities of a pathfinder aircraft integrated with the helicopter formation would have most likely resulted in the safe arrival of all flyable helicopters at Desert One. The weather conditions encountered would not have had as great an impact, and the helicopter formation would have arrived at Desert One much closer to its planned time of arrival. When formulating forces for extremely difficult operations, no resource should be overlooked that could contribute to the increased chances of mission success.

### Helicopter Aborts

Of the eight mission capable RH-53D helicopters that departed the U.S.S. Nimitz for Desert One, only five mission capable helicopters actually arrived at the rendezvous point. This was one short of the required number of airframes needed to continue the mission. As a result the operation was aborted.

The first abort, by helicopter 6 occurred approximately two hours into the mission and was caused by a BIM warning light indicating the possible impending failure of one of the main rotor blades. The flight crew made a precautionary landing to investigate the indication, and confirmed the cockpit warning with the BIM indicator on the rotor blade. Based on normal operating procedures, the crew elected to abandon the aircraft on the desert floor and was picked up by another helicopter. Normally BIM indications in the CH/HH-53 community warrant terminating the mission, as there had been documented cases of cracked spars that resulted in helicopter crashes.<sup>13</sup> However there had never been a documented case of a cracked spar in the RH-53D community. This information was never made available to the Marine flight crews, and could have affected the decision of crew 6 if they were instructed on all the operating limitations of the RH-53D, which differed from the CH-53 models they were accustomed to operating.

The second abort, by helicopter 5, occurred approximately four hours into the mission while helicopter 5 was within the midst of the dust cloud and was experiencing failures to primary flight and navigational instruments. When they aborted, the crew of helicopter 5 was about 25

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minutes from exiting the dust cloud and was about 55 minutes from Desert One. Had the crew known that they would exit the dust cloud and had VMC conditions at Desert One they most likely would have elected to continue the mission.

The third abort, by helicopter 2, occurred at Desert One and was the result of a hard failure of a hydraulic pump. There was insufficient time, nor was the part available, to effect repairs on the failed hydraulic system. At this time it was decided to abort Operation Eagle Claw as there were insufficient helicopter forces available to continue the mission.

### Helicopter Aborts Lessons

The JTF planning staff went to great pains to tailor the rescue force to the minimum required to accomplish the mission with a reasonable chance for success. Once the type of helicopter was decided, the planning staff researched dependability rates and maintenance statistics to help them determining the right number of helicopters required to accomplish the mission, balancing that number against the need for as small a force as possible in order to maximize OPSEC.

The specific issues relating to the BIM procedures of helicopter crew 6 and the weather related abort decision of helicopter crew 5 have already been addressed. The hydraulic pump failure of helicopter 2 was the only “hard” maintenance failure experienced by the helicopter force, however there still were insufficient helicopter resources available at Desert One to continue the mission. Prudent planning dictates that as much capability as is feasible should be included in any operational plan, and the requirement for OPSEC should not force planners into cutting corners and accepting only the bare minimum force required to complete the mission.

“Murphy’s Law” is alive and well and will continue to haunt military operations. Providing the greatest capability available while balancing the need for operational security will ensure the planner the best chance for success.

### The Enemy Radar Threat

In an isolated incident during the training phase of operations, an unevaluated report of enemy radar capabilities was passed directly to the helicopter aircrews. This report was not properly evaluated by intelligence assets and did not contain accurate data. Helicopter crews may have

made certain adjustments to operational flight procedures regarding altitude selection based on this report. The final conclusions of intelligence analyst regarding the enemy radar threat contradicted the data and implications of the report given to the helicopter crews.

### *Enemy Radar Threat Lessons*

This incident highlights the need for proper command and control of all aspects of the planned operation. Ad-hoc arrangements do not lend themselves to the proper handling and dissemination of information within the planning organization. Intelligence reports should always be passed through the appropriate intelligence function to ensure it is properly analyzed and that the appropriate conclusions are formulated for dissemination to the operational users.

### *Helicopter Communications*

COMSEC was a major influence in the tactics developed for the helicopter ingress mission. The helicopter force trained using complete radio silent procedures. Any intraflight communication was to be accomplished through the use of light signals. When the helicopter flight elements became visually separated in the dust clouds, they lost all capability to communicate. The helicopter flight lead never knew that helicopter 6 had landed and abandoned their aircraft nor that helicopter 8 also landed and picked up the crew from helicopter 6. He also did not know that helicopter 5 had left the formation and returned to the Nimitz.

At the time of mission execution, there existed on board all of the helicopters the capability to communicate with minimum risk of detection. In fact the capability to communicate between the C-130s, the Nimitz, and the helicopters was available, however the desire to maintain OPSEC to

achieve surprise overrode all other considerations.

### Helicopter Communications Lessons

The need to maintain OPSEC and COMSEC to achieve the element of surprise is critical to any high-risk clandestine operation. Operational planners must always carefully weigh the advantages and disadvantages between OPSEC/ COMSEC requirements and the need for communications capability within the operation. If a secure means of passing information is available and can be utilized with a reasonable expectation of not compromising the mission, then that capability must be incorporated into the operational procedures of the JTF. The pilot of helicopter 5 has stated that had he known that the weather conditions at Desert One were VMC he would have elected to continue the mission. A few short transmissions would have enabled him to receive this information, and the outcome of Eagle Claw may have been significantly altered.

### Alternatives to the Desert One Site

During the planning process it became evident that a desert rendezvous was required to successfully insert the rescue force. This created the need to locate a suitable landing area that could handle several C-130s and RH-53Ds. An extensive survey of available information covering potential landing sites was accomplished, and when the Desert One site was selected, a clandestine survey team was flown into Iran to evaluate its suitability. The only drawback to Desert One's location was its close proximity to a road, and the associated risk of detection by traffic on the road. The JTF planning staff assessed this risk and included procedures to deal with any traffic that may interfere with the operation. Shortly after landing at Desert One, the site security team had to detain a bus load of passengers and destroy a fuel tanker truck that failed to stop

when challenged. Although procedures were in place to handle the interdiction of

traffic, the risk of early compromise to the security of the mission seemed extremely high.

### *Alternatives to the Desert One Site Lessons*

The decision to locate the rendezvous site of Desert One near an active road seemed to violate the extreme OPSEC principles being applied throughout the Eagle Claw plan. The chance that the mission would be compromised early due to detection from traffic on the road was very real, and the JTF staff recognized that procedures were needed to maintain security of the force while at Desert One. The fact that a bus load of civilians had to be detained and a fuel tanker truck had to be destroyed validates the fact that this was an extremely risky location.

Unfortunately there was no other location suitable for the rendezvous of the C-130 and helicopter force. The JTF planning staff made the only choice it could in regard to the location of Desert One. It did appear that their risk assessment of the location may have been lower than was actually the case. Planners must always apply operational risk management to all decisions affecting the chance for successful mission accomplishment. If the mission dictates the need for increased risk, then planners must ensure that all available measures to reduce the risk are incorporated into the operational plan.

### *Command and Control at Desert One*

The refueling and loading operations at Desert One were extremely complicated and involved large numbers of personnel and equipment. Not only were helicopter refueling operations being

conducted, but a Combat Control Team was deployed, the road security team was deployed, and the transfer of the Delta Force from the C-130s to the helicopters was taking place. All of this activity was being accomplished amidst the noise and dust generated by 16 C-130 and 12 RH-53D engines.

The on-scene commander at Desert One was indistinguishable from other members on the ground. There was no previously established command post location, and no special identifying

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insignia was assigned to any command elements on the ground. the JTF staff felt comfortable that the rehearsal performed in training validated the concept of operations at Desert One, and that personnel were capable of recognizing those individuals in charge.

An extremely confusing and difficult situation at Desert One soon became almost uncontrollable when helicopter 3 collided with one of the C-130s while trying to reposition itself. In the ensuing explosion and fire, immediate orders for directing personnel and evacuating the ground force had to be questioned, as there was no immediate way to identify who was in charge and who had authority to direct actions on the ground.

#### *Command and Control at Desert One Lessons*

The operation that was to be attempted at Desert One was an extremely complex and difficult one requiring close coordination and strict supervision. The fact that this was the first time that all the forces had actually come together to accomplish this task did not aid in the smooth accomplishment of the assigned tasks. The basic concept of ground refueling the helicopter force was practiced prior to the mission, but the JTF staff felt it would be risky to bring together all the forces for a full dress rehearsal. As a result there was no formalized plan for command and control while on the ground at Desert One, in fact some of the helicopter flight crews didn't even know

who the on-scene commander was.

There should have been a fixed and easily recognizable location for the on-scene commander, and those in charge should have had some form of readily recognizable identification that was easily seen in night conditions. This would have alleviated much of the confusion during the initial reaction to the accident at Desert One.

### Classified Material Safeguard

All of the aircraft carried classified material relating to the execution of the rescue operation. Part of the mission abort procedures called for the return of all the helicopters to the Nimitz to

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prevent the compromise of classified information. There were no provisions in the operational plan for the emergency destruction of classified materiel. When the accident occurred at Desert One, all personnel were ordered to evacuate on the C-130s immediately. The personnel responsible for classified information on the two helicopters in the southern refuel zone were able to sanitize the helicopters and retrieve their classified. However for the three helicopters in the northern zone who were within the immediate location of the fire and exploding ammunition, there was no possibility of returning to the helicopters to sanitize them and retrieve the classified information. As a result sensitive classified information fell into the hands of the Iranian authorities.

### Classified Material Safeguard Lessons

Although the loss of classified material had no impact on the outcome of this mission, it did point out a flaw in the operational plan. The safeguarding and control of classified information is a key responsibility and should be a part of the command and control of operations. Clear instructions



and contingency plans for the safeguarding of classified need to be included in training and in the operational plan.

### *Destruct Devices on Helicopters*

During the planning phase, the requirement to destroy the helicopters in Iran should a contingency situation require it arose. The staff determined that the helicopters would be destroyed by individuals placing thermite grenades in the helicopters to destroy them. The individuals tasked with helicopter destruction were part of the ground rescue force.

When the crew of helicopter 6 was forced to abandon its helicopter, there was no way to destroy it because they had not joined-up with the ground force, thereby leaving an intact asset on the ground. Following the accident at Desert One, the necessity for an immediate evacuation of all personnel left no time for the destruction of the remaining helicopters. As a result five

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intact helicopters were left at Desert One.

### *Destruct Devices on Helicopters Lessons*

Since the need to have a capability to destruct the helicopters was identified during the planning of Eagle Claw, it should have been included as a capability inherent to the helicopter force itself. The fact that the destruct capability for the helicopters was contained within the ground rescue forces prevented the timely destruction of the helicopters when a contingency situation arose. Concerns that having explosives installed on the helicopters was unnecessarily dangerous was unfounded, since similar requirements have existed in the past and crews given the proper training were comfortable in the execution of destruction orders.

The previous 23 issues identified by the Holloway Report reflect the areas that the commission members felt had some impact on the outcome of the mission. There are three recurring themes that appear throughout the analysis of Operation Eagle Claw. These recurring themes are OPSEC, Command and Control, and equipment reliability.

The perceived need for excessive OPSEC to preserve the element of surprise caused many problems throughout the scope of the operation. Extreme compartmentalization of information among the planning staff as well as the participants in the operation caused major disruptions in the coordination of key elements in the rescue effort. Essential information was withheld from team members in the name of OPSEC. This was a major contributor to the problems experienced by the rescue force.

Another problem related to OPSEC was command and control. An ad-hoc JTF planning staff was assembled for this operation even though an existing JTF staff was in place at the Pentagon and available. It was feared that an existing JTF could not maintain adequate OPSEC for this sensitive of a mission. Because of the ad-hoc nature of the new JTF, clear lines of authority were not drawn between the planning staff and the various organizations participating in the operation.

A specially equipped and modified rescue helicopter designed for the type of long range clandestine operation called for in Eagle Claw was not available. This led to the selection of the “best available” alternative, the RH-53D, which was not designed for the type of operation it was being asked to perform. After having to deal with extremely harsh flying conditions, the helicopter force did reach Desert One, however they were not in sufficient numbers to continue the mission. There were many factors related to the operation of the RH-53D that led to the abort at Desert One.

Many of the lessons learned can prove to be invaluable to future planners of similar clandestine, high-risk Military Operations Other Than War (MOOTW) missions. The impact that Operation Eagle Claw had on subsequent military operations is evident when one reviews them.

### **THE LEGACY**

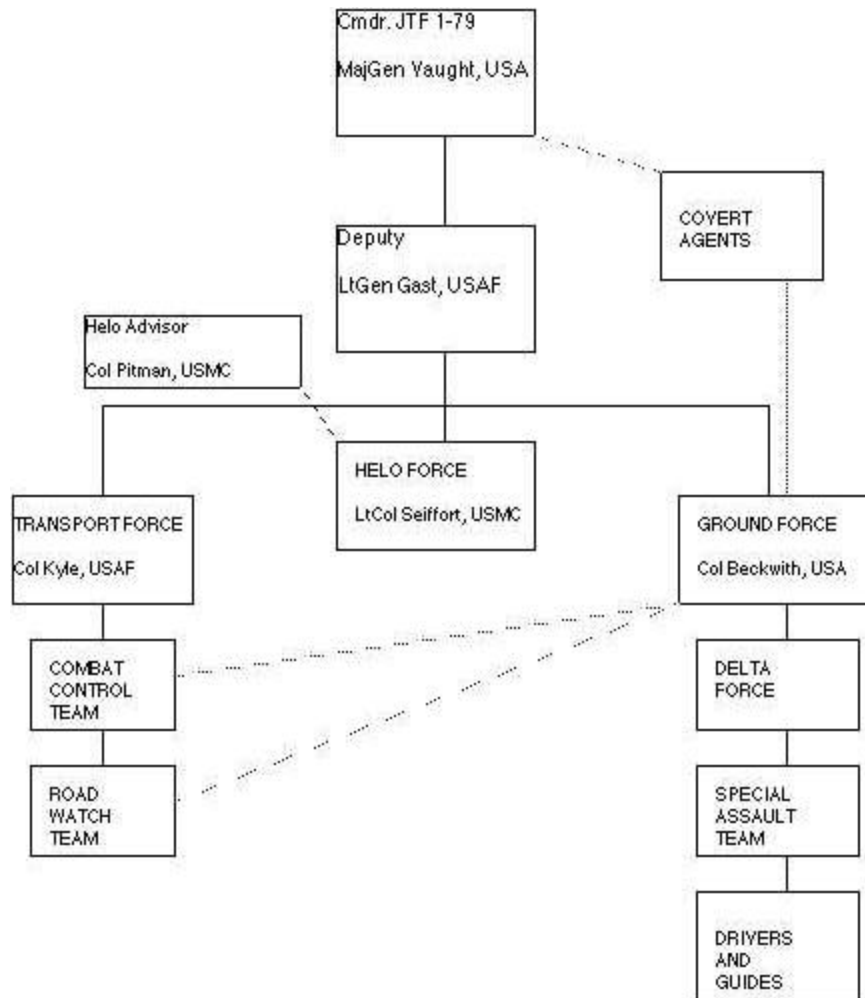
Operation Eagle Claw may not have resulted in the rescue of the American hostages, but it was not a total failure. The after-effects of Eagle Claw were felt for many years following the withdrawal from Desert One. Many of the recommendations prescribed by the Holloway Report were implemented in subsequent operations in Grenada and Panama, with much better results in the handling of OPSEC and command and control.

Probably one of the greatest accomplishments of Eagle Claw was the affect it had on the development of the 1986 Goldwater-Nichols Act. Eagle Claw pointed out many flaws in the planning and operation of joint forces, and this provided the impetus towards the efforts to reorganize the Department of Defense. It also pointed out the need for a dedicated special operations capability within the Department of Defense. This has been realized with the creation in 1987 of the U.S. Special Operations Command, specifically tasked with the responsibility to prepare and maintain combat-ready special operations forces to successfully conduct special operations.

Many people would label Operation Eagle Claw a miserable failure. It was certainly a terrible tragedy, in that eight U.S. servicemen died. However to say that it was a failure would be shortsighted, for Eagle Claw ensured the future capability of the U.S. military to conduct high-risk clandestine special operations with the best SOF force in the world.



## Operation Eagle Claw Chain of Command



## Appendix 2

### Sample Abort Matrix

| <b>Abort Matrix</b> | <b>DEPARTURE</b>                | <b>INGRESS</b>                | <b>ENROUTE</b>                     | <b>DESERT 1</b>                              | <b>DESERT 2</b>                            | <b>EGRESS</b>                              |
|---------------------|---------------------------------|-------------------------------|------------------------------------|--|--|--|
| <b>WX</b>           | VIS: >500/ 1<br>W/V: <30kts     | VIS: >200/ 1/2<br>W/V: <50kts | VIS: >200/ 1/2<br>W/V: <50kts      | VIS: >200/ 1/2<br>W/V: <50kts                | VIS: >200/ 1/2<br>W/V: <50kts              | VIS: >200/ 1/2<br>W/V: <50kts              |
| <b>MX</b>           | All Sys GO                      | No more than 1<br>BIM ind.    | No more than 1<br>BIM ind.         | All Hyd-GO<br>1 Pri. Flt Sys-GO<br>1 Gen.-GO | 1 Hyd-GO<br>1 Pri. Flt Sys-GO<br>1 Gen.-GO | 1 Hyd-GO<br>1 Pri. Flt Sys-GO<br>1 Gen.-GO |
| <b>COMM</b>         | All Sys GO                      | All Sys GO                    | All Sys GO                         | 1 VHF-GO<br>1 HF-GO                          | 1 HF-GO                                    | 1 HF-GO                                    |
| <b>NAV</b>          | All Sys GO                      | All Sys GO                    | All Sys GO                         | Pri. Flt Inst-GO<br>1 INS-GO                 | Pri. Flt Inst-GO                           | Pri. Flt Inst-GO                           |
| <b>FUEL</b>         | No less than<br>10,000lbs       | No less than<br>8,000lbs      | Joker: 6,000lbs<br>Bingo: 4,000lbs | No less than<br>4,000lbs                     | No less than<br>2,500lbs                   | No less than<br>1,000lbs                   |
| <b>THREAT</b>       | No SIGINT collector<br>W/I 10nm | No visually<br>detected TGTs  | No visually<br>detected TGTs       | LZ Prot. Force in<br>place                   | No visually<br>detected TGTs               | No visually<br>detected TGTs               |
| <b>SUPPORT</b>      | Delta Force enroute             | Delta Force<br>enroute        | Delta Force<br>enroute             | Delta at Desert 1                            | Transport force<br>at Desert 2             | Rangers at airport                         |

1. Mission Phases across the top/ Mission Capabilities & Requirements on the left column.
2. Required systems and capabilities to continue mission are indicated under each mission phase.
3. Abort mission if required system/capability/condition is not met for each phase.

END NOTES

1. Otto Kreisher, "Desert One," *Air Force Magazine*, January 1999, 2.
2. Kreisher, 5.
3. Daniel P. Bolger, *Americans at War*, 1988, 126.
4. Kreisher, 7.
5. Joint Chiefs of Staff, *Special Rescue Mission Report*, August 1980, 4. Cited hereafter as JCS, *Rescue Mission Report*.
6. JCS, *Rescue Mission Report*, 11.
7. JCS, *Rescue Mission Report*, 12.
8. Joint Forces Staff College PUB 1, *The Joint Staff Officers Guide 2000*, G-62. Cited hereafter as JFSC Pub 1.
9. JFSC Pub 1, G-25.
10. JCS, *Rescue Mission Report*, 16.
11. JCS, *Rescue Mission Report*, 20.
12. JCS, *Rescue Mission Report*, 27.
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